

I CLAIM:

1. An endcap for a tubular baseball bat, the tubular baseball bat comprising:

- a) a cylindrical handle portion;
- b) a cylindrical tubular barrel portion, the barrel portion having an end;
- c) a tapered mid-section for connecting said handle and barrel portions; and
- d) a knob at the handle portion;

said endcap for being disposed at the end of the barrel portion comprising a polymer composite material having a polymeric fiber-supporting matrix and at least two courses of continuous length fibres embedded therein.

2. An endcap according to claim 1 wherein said continuous length fibres of said respective courses are oriented in at least two directions across the endcap.

3. An endcap according to claim 1 wherein said endcap has a transverse stiffness across its width at least four times greater than that of an endcap of the same shape and the same polymeric fiber-supporting matrix but lacking said fibers.

4. An endcap according to claim 1 further comprising boundary edge portions, wherein most of the at least two courses of continuous length fibres span said endcap from one edge portion to another edge portion.

5. An endcap according to claim 1 further comprising a central region, said central region having a substantially constant thickness.

6. An endcap according to claim 5 further comprising a bat-engaging peripheral region, wherein said central region and said bat-engaging peripheral region, have a substantially same constant thickness.

7. An endcap according to claim 6 wherein said central region and bat-engaging peripheral region, have a substantially uniform thickness of less than 0.1 inches.
8. An endcap according to claim 1 wherein said polymer composite material comprises a resin matrix for encapsulating reinforcement fibres wherein said resin is selected from the group of resins consisting of epoxy, vinyl, polyester, urethane, nylon, and mixtures thereof and wherein said reinforcement fibres are selected from the group consisting of fiberglass, graphite, carbon, aramid, boron, nylon and mixtures thereof.
9. An endcap according to claim 8 wherein said reinforcement fibres are selected from the group consisting of graphite and carbon
10. An endcap according to claim 1 wherein the endcap is bonded to the end of the barrel portion with a thin film adhesive having a weight of less than 0.10 ounces.
11. An endcap according to claim 10 wherein said thin film adhesive has a thickness of less than 0.05 inches and wherein a bonding zone is limited to less than 1 inch of the interior, or exterior or intermediate circumferential barrel walls at the barrel end.
12. An endcap according to claim 1 wherein said endcap has a weight of less than 1 ounce.
13. An endcap according to claim 1 wherein said endcap preferably has a weight of less than 0.5 ounces.
14. An endcap according to claim 1 wherein the endcap is of singular construction.